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ZARLEY LAW FIRM P.L.C. CAPITAL SQUARE 400 LOCUST, SUITE 200 DES MOINES, IA 50309-2350			EXAMINER LEYSON, JOSEPH S	
			ART UNIT 1791	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: on p. 4, line 8, "restrictor element 48" should be changed to --restrictor element 44-- as understood from the rest of the specification.

Appropriate correction is required.

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the subject matter of claims 20, 21, 23 and 24 should be included in the disclosure.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 19-21 are rejected under 35 U.S.C. 102(b) as being anticipated by Humphrey (US 1,585,149).

Humphrey (US 1,585,149) teaches an extrusion tube 4, comprising, an elongated hollow tube 7, 11 having an intake end and a discharge end (i.e., figs. 1 and 2), a restrictor element 12 in the tube 7, 11 to partially restrict the longitudinal movement of extrusion material therethrough. The restrictor element 12 is capable of dividing the extrusion material passing through the tube 7, 11 into separate longitudinal portions

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comprised of first portion of extrusion material that passes, engages and is deflected to pass over the restrictor element 12, and a second portion (i.e., the portion that passes opposite of the restrictor element 12) that does not engage the restrictor element 12 and passes thereby without being deflected. The restrictor element 12 is located in an off-center position within the tube 7, 11 (figs. 2 and 3). Note that the restrictor element 12 can be placed at adjustable depths within the tube 7, 11 by screw 16, and thus, as shown by figs. 2 and 3, the cross sectional area of the restrictor element with respect to the cross sectional area in a hollow portion of the tube is capable of being between 1-2 to 1-8. The restrictor element 12 engages a top portion of the hollow tube 7, 11 (i.e., the sides of the element 12 engage the top portion of the tube 7, 11, as shown in figs. 2 and 3), and has a concave arcuate surface on a bottom surface thereof (i.e., fig. 3). As to the claim recitations, such as "sausage", "meat emulsion" and "sausage emulsion", such recitations relate to the intended use of the claimed apparatus. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*,

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75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 20, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Humphrey (US 1,585,149).

Humphrey (US 1,585,149) discloses the apparatus substantially as claimed, as mentioned above, except for the cross sectional area of the restrictor element with respect to the cross sectional area in a hollow portion of the tube being between 1-2 to 1-8, or for a downstream end of the resistor element is approximately 100mm from the discharge end.

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As to instant claim 20, if applicant does NOT agree that figs. 2 and 3 of Humphrey (US 1,585,149) shows that the cross sectional area of the restrictor element 12 with respect to the cross sectional area in a hollow portion of the tube is capable of being between 1-2 to 1-8 after adjusting screw 16, as mentioned above, then it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of Humphrey (US 1,585,149) such that the cross sectional area of the restrictor element with respect to the cross sectional area in a hollow portion of the tube is between 1-2 to 1-8 because such a modification would have been found in view of the teachings of Humphrey (US 1,585,149: p. 1, line 86, to p. 2, line 2) to find the optimum or operable position of the restrictor element to obtain a desired pressure of the extrusion material. Furthermore, note that instant claims 20 and 22 are related to the dimensions of the claimed apparatus. Where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

As to claim 23, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of Humphrey (US 1,585,149) such that the restrictor element extends into the tube from the tube bottom, instead of the tube top, because it would be well within an artisan of ordinary skill to shift the location of apparatus parts when operation of the apparatus would not otherwise be

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modified, In re Japikse, 86 USPQ 70. Note that if the resistor element extends into the tube from the tube bottom, then the resistor element would engage a bottom portion of the hollow tube (i.e., the sides of the resistor element would engage the bottom portion), and the concave arcuate surface would be on a top surface of the resistor element.

8. Claims 24 and 25 rejected under 35 U.S.C. 103(a) as being unpatentable over Humphrey (US 1,585,149) in view of Carrow (US 3,815,637).

Humphrey (US 1,585,149) discloses the apparatus substantially as claimed, as mentioned above, except for an open passageway being formed above the restrictor element having an elliptical cross-sectional shape, or for an inclined ramp being on an upstream end of the restrictor element.

Carrow (US 3,815,637) discloses a restrictor element 9, 10, 11 having an inclined ramp on an upstream end of the resistor element (i.e., fig. 1 wherein the restrictor element 10 is angled to define an upstream ramp inclined relative to extrusion flow). The restrictor element has a concave inner end 15, 16, 17 of irregular configuration to provide streamlined flow of extrusion material and to avoid dead spots where extrusion material could otherwise collect, degrade and slough off into the extrusion material since the flow is directed and self-wiping (i.e., figs. 1, 3 and 4; col. 3, lines 18-34). The irregular configuration defines an open passageway formed above the restrictor element having an irregular longitudinal cross-sectional shape.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the restrictor element of Humphrey (US 1,585,149) with the restrictor element of Carrow (US 3,815,637) because such a modification would

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provide streamlined flow of extrusion material and would avoid dead spots where extrusion material could otherwise collect, degrade and slough off into the extrusion material since the flow is directed and self-wiping. As to the irregular configuration being elliptical, such an elliptical configuration would have been found due to routine experimentation in finding optimum or operable irregular, concave configurations which provide streamlined, self-wiping flow, in view of the teachings of Carrow (US 3,815,637).

9. Claims 19-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyng (US 4,272,577) in view of Humphrey (US 1,585,149).

Lyng (US 4,272,577: i.e., fig. 4; col. 5, lines 6-10) discloses a extrusion apparatus, comprising, an elongated hollow device having an extrusion material intake end and an extrusion material discharge end (fig. 4), a restrictor element P in the device to partially restrict the longitudinal movement of extrusion material therethrough so as to divide the extrusion material passing therethrough into separate longitudinal portions comprised of first portion of extrusion material that passes, engages and is deflected to pass over the restrictor element P, and a second portion that does not engage the restrictor element P and passes thereby without being deflected (fig. 4). The restrictor element P is located in an off-center position within the device (fig. 4). The restrictor element P engages a bottom portion of the hollow device (i.e., fig. 4 wherein the sides of element P engage the bottom portion of the hollow device). An inclined ramp is on an upstream end of the restrictor element P (fig. 4). However, Lyng (US 4,272,577) does not disclose the device being a tube.

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Humphrey (US 1,585,149: figs. 1-3) discloses an extrusion apparatus including an elongated hollow tube for forming a tubular product.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the device of Lyng (US 4,272,577) to be a tube because such a modification would enable production of a tubular product, as disclosed by Humphrey (US 1,585,149).

As to instant claims 20 and 22, these claims relate to the dimensions of the claimed apparatus. Where the only difference between the prior art and the claims is a recitation of relative dimensions of the claimed device and a device having the claimed relative dimensions would not perform differently than the prior art device, the claimed device is not patentably distinct from the prior art device, In Gardner v. TEC Systems, Inc., 725 F.2d 1338, 220 USPQ 777 (Fed. Cir. 1984), cert. denied, 469 U.S. 830, 225 USPQ 232 (1984).

As to the claim recitations, such as “sausage”, “meat emulsion” and “sausage emulsion”, such recitations relate to the intended use of the claimed apparatus. A claim containing a “recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus” if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114. “Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim.” Ex parte Thibault, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, “[i]nclusion of material or

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article worked upon by a structure being claimed does not impart patentability to the claims.” In re Young, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in In re Otto, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

10. Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lyng (US 4,272,577) in view of Humphrey (US 1,585,149) as applied to claims 19-22 and 25 above, and further in view of Carrow (US 3,815,637).

Carrow (US 3,815,637) discloses a restrictor element 9, 10, 11 having a concave arcuate inner end 15, 16, 17 defining a top surface of irregular configuration to provide streamlined flow of extrusion material and to avoid dead spots where extrusion material could otherwise collect, degrade and slough off into the extrusion material since the flow is directed and self-wiping (i.e., figs. 1, 3 and 4; col. 3, lines 18-34). The irregular configuration defines an open passageway formed above the restrictor element having an irregular longitudinal cross-sectional shape.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the restrictor element with the restrictor element of Carrow (US 3,815,637) because such a modification would provide streamlined flow of extrusion material and would avoid dead spots where extrusion material could otherwise collect, degrade and slough off into the extrusion material since the flow is directed and self-wiping. As to the irregular configuration being elliptical, such an elliptical configuration would have been found due to routine experimentation in finding optimum or operable irregular, concave configurations which provide streamlined, self-wiping flow, in view of the teachings of Carrow (US 3,815,637).

Response to Arguments

11. Applicant's arguments with respect to the instant claims have been considered but are moot in view of the new ground(s) of rejection.

Applicants argue that Humphrey does not teach a restrictor element that engages, deflects, and allows meat to pass over the element; and divides meat into separate longitudinal portions; that Humphrey teaches a resistor element that has a rectangular cross sectional area (See Fig. 2) which creates a surface that is perpendicular to the flow of the meat through the tube; that, as a result, restrictor 12 of Humphrey would not allow meat to engage, deflect, and pass over it, because the perpendicular interface created between the resistor and the meat flow only serves to block the passage of meat; that Humphrey would only allow one longitudinal portion of meat to pass through the restrictor element 12; and that, therefore, because Humphrey does not teach a resistor element that either divides a meat emulsion into first and second longitudinal portions or engages and deflects meat allowing it to pass over the restrictor element, Humphrey does not anticipate claim 19. The examiner respectfully disagrees. The restrictor element of Humphrey is clearly capable of engaging, deflecting, and allowing meat to pass over the element; and of dividing meat into separate longitudinal portions. The "perpendicular interface" clearly does NOT stop the extrusion flow dead in its tracks at the interface. The extrusion flow has a first portion that would engage, deflect and pass over it, while a second portion of the extrusion flow that does not engage the "perpendicular interface" would pass thereby without being deflected. Furthermore, the scope of the restrictor element of claim 19, which requires

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the element to partially extend into the flow, as understood from the instant specification, reads on the restrictor element of Humphrey, which also partially extends into the flow.

As to applicant's arguments relative to extruding meat emulsion and sausage extrusion and to the prior art extruding different materials, such arguments are not commensurate in scope with the instant claims. The instant claims are apparatus claims and are NOT limited to extruding meat emulsion and sausage extrusion. In other words, extruding different materials, such as food, plastic or concrete, through a tube does NOT change the structure of the tube. The tube is still a tube. As mentioned above relative to the claim recitations, such as "sausage", "meat emulsion" and "sausage emulsion", such recitations relate to the intended use of the claimed apparatus. A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987); see MPEP 2114. "Expressions relating the apparatus to contents thereof during an intended operation are of no significance in determining patentability of the apparatus claim." *Ex parte Thibault*, 164 USPQ 666, 667 (Bd. App. 1969). Furthermore, "[i]nclusion of material or article worked upon by a structure being claimed does not impart patentability to the claims." *In re Young*, 75 F.2d 996, 25 USPQ 69 (CCPA 1935) (as restated in *In re Otto*, 312 F.2d 937, 136 USPQ 458, 459 (CCPA 1963)). See MPEP 2115.

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In response to applicant's argument that Lyng and Humphrey are nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the prior art is clearly in applicant's endeavor, namely extrusion. And the prior art is related to the particular problem with which applicants were concerned, namely affecting extrusion flow with restrictor elements.

Applicants argue that the purpose of the present invention is to curve sausage links by creating two longitudinal sections of meat emulsion, one having linear fibers, and the other having fibers of random orientation which thereby cause the sausage links to curve. However, such arguments are NOT commensurate with the scope of the instant claims. The instant claims are not limited to curved sausage extrusion.

Applicants argue that Claim 23 in part requires "the device of claim 19 wherein the restrictor element engages a bottom portion of the hollow tube, and has a concave arcuate surface on a top surface thereof."; and that Humphrey does not teach this limitation and instead teaches choke block 12 having a recess 13 that restricts passage 14 from the top. As mentioned above and in the previous office action relative to claim 23, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the apparatus of Humphrey (US 1,585,149) such that the restrictor element extends into the tube from the tube bottom, instead of the tube top, because it would be well within an artisan of ordinary skill to shift the location of

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apparatus parts when operation of the apparatus would not otherwise be modified, In re Japikse, 86 USPQ 70. Note that if the resistor element extends into the tube from the tube bottom, then the resistor element would engage a bottom portion of the hollow tube (i.e., the sides of the resistor element would engage the bottom portion), and the concave arcuate surface would be on a top surface of the resistor element. Also, note that Lyng and Carrow teach restrictor elements restricting the passage from the bottom.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Paiseau (US 1,700,208) and Umeda et al. (US 5,522,719) are cited as of interest.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH LEYSON whose telephone number is (571)272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert B. Davis/
Primary Examiner, Art Unit 1791

/J. L./
Examiner, Art Unit 1791